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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,568	03/30/2004	Rahul Gupta	2004P00344US01	3687

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Siemens Corporation
Attn: Elsa Keller, Legal Administrator
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170 Wood Avenue South
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EXAMINER	
GARRETT, DAWN L	
ART UNIT	**PAPER NUMBER**
1774	

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/812,568	GUPTA ET AL.	
	Examiner	Art Unit	
	Dawn Garrett	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,7 and 9-24* is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7 and 9-24* is/are rejected.

7)☐ Claim(s) ____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment dated September 1, 2005. Claims 1-4, 6, 7, 9-11, 13, and 16-22 have been amended. Claims 23 and 24 have been added. Claims 1-4, 6, 7, and 9-24 are pending.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The objections to claims 2, 4, 8 and 11 set forth in the last Office action (mailed May 17, 2005) are withdrawn due to the amendment.

4. The rejections over claims 13 and 16 under 35 U.S.C. 112, second paragraph, set forth in the last Office action, paragraphs 2-5, are withdrawn due to the amendment.

5. Claims 1-4, 6, 7, 9-13, 15-18, 21 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Ottermann et al. (US 2004/0101618 A1). Ottermann et al. discloses light emitting devices comprising a step of crosslinking at least one of the layers of the device (see par. 30). A hole conductivity layer (hole transporting layer) may be formed of PEDOT-PSS per claims 2-4 and 13 (see par. 45). The polymerization reactions may be initiated either by UV radiation, heat, or chemical action per claim 7 (see par. 44). Ottermann et al. discloses two layers may be crosslinked at their interface with regard to claim 6 (see par. 30 and par. 40). Ottermann et al. further discloses either an anode or cathode contact layer applied to the substrate prior to the application of the organic layers with regard to claim 10 (see par. 51). Ottermann et al. discloses at least one of the organic layers is an emissive layer (see par. 42) with regard to claim 11.

Ottermann et al. further discloses an electrode layer such as the cathode layer disposed over the organic layers with regard to claim 12 (see par. 51). With regard to claim 16 and the requirement of a "hetero-structure", Ottermann et al. teaches dye may be embedded in at least one of the organic layers (see par. 48). With regard to claim 17, electron blocking is an inherent property of a hole transport layer and Ottermann et al. clearly discloses a hole conducting layer (hole transporting layer) (see par. 45). Furthermore, with regard to claims 18 and 21, the hole transporting layer made from PEDOT:PSS is deemed to have the property of wave-guiding, because PEDOT:PSS is the same material as taught by applicant for the hole transporting layer (see par. 45).

6. Claims 1-4, 14, 17, 18, 21 and 24 are again rejected under 35 U.S.C. 102(e) as being anticipated by Sirringhauss et al. (US 2004/0266207 A1). Sirringhauss et al. discloses organic electronic devices comprising layers which may undergo crosslinking reactions (see par. 35, 38, and 39). The devices are transistor devices (see par. 6) with regard to claim 14. Par. 38 discloses the crosslinking is done by heat with regard to claim 8. The PEDOT:PSS disclosed in par. 35 is a hole transporting material with regard to claims 3, 4, 17, and 18. With regard to claims 18 and 21, the hole transporting layer made from PEDOT:PSS is deemed to have the property of wave-guiding, because PEDOT:PSS is the same material as taught by applicant for the hole transporting layer (see par. 35).

7. Claims 1, 6, 7, 9-12, and 15 are again rejected under 35 U.S.C. 102(a) as being anticipated by Muller et al. (Nature, Vol. 421, 20 February 2003, pages 829-833). Muller et al. discloses organic electroluminescent devices (OLEDs) comprising crosslinked organic layers (see p. 830, col. 2, first full paragraph). The crosslinking is accomplished with UV radiation,

heat, and initiator (see page 832, methods "film preparation"). The organic layers are deposited on an anode ITO layer and a cathode is formed of calcium on top of the layers (see page 832, col. 1, "Device preparation and physical characterization").

8. Claims 1-4, 6, 7, 9, 13, 15, 17-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 2003/0170492 A1). Anderson et al. teaches electronic touch screens comprising a binder layer, which may be crosslinked by the addition of a crosslinking agent or by radiation curing (see par. 33 and 34). The device may include a hole transporting layer comprised of PEDOT/PSS (see par. 102) with regard to claims 2-4, 13, 17 and 21. With regard to claims 18 and 21, the hole transporting layer made from PEDOT:PSS is deemed to have the property of wave-guiding, because PEDOT:PSS is the same material as taught by applicant for the hole transporting layer. With regard to claims 19, 20 and 22, Anderson et al. teaches chelated oxinoids for electron injection and transportation (see par. 142). With regard to claim 17, electron blocking is an inherent property of a hole transport layer and Anderson et al. clearly discloses a hole transporting layer (see par. 102). With regard to claim 19, hole blocking is an inherent property of an electron transport layer and Anderson et al. clearly discloses an electron transport layer (see par 141-142). Anderson et al. fails to exemplify a device with a crosslinked conductive layer; however, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed a device with a crosslinked conductive layer, because Anderson et al. clearly teaches a crosslinked conductive layer for use with organic electroluminescent devices.

9. Claim 23 is rejected under 35 U.S.C. 102(e) as being anticipated by Ottermann et al. (US 2004/0101618 A1) in view of Shi et al. (US 5,766,779). Ottermann et al. teaches crosslink at

least one organic layer of an organic light emitting device and generally teaches functional layers of a light emitting device (see par. 64-65), but fails to teach specifically the layers of a device according to claim 23, particularly the inclusion of an electron injecting layer. Shi et al. teaches in analogous art that devices are conventionally known to have the following functional layers: hole transport layer, emissive layer, electron transport layer, as well as a separate electron injecting layer (see Figure 3). It would have been obvious to one of ordinary skill in the art to have included all of the required layers in a device according to Ottermann et al., because Ottermann et al. generally teaches organic electroluminescent functional layers and Shi et al. teaches this combination of layers is well known and commonly used in manufacturing electroluminescent devices.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 13 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is not seen where the specification clearly describes or sets forth "constituents capable of crosslinking" with regard to the PEDOT:PSS solution per claim 13.

With regard to claim 24, it is not seen where the specification expressly sets forth a "light *detecting* layer".

Response to Arguments

12. Applicant's arguments filed September 1, 2005 have been fully considered but they are not persuasive. All of the arguments with regard to each applied piece of prior art are drawn to the references not teach the same *method* of forming layers. The examiner submits that only *product* claims are active in the application. Per M.P.E.P. § 2113:

> "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the **product itself**. The patentability of a product does not depend on its **method of production**. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)... "The Patent Office bears a lesser burden proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessman*, 180 USPQ 324, 326 (CCPA 1974). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process**, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.** *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983).

At the present time, it is not seen where evidence has been presented to establish an unobvious difference in the claimed product and the prior art products.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dawn Garrett
Primary Examiner
Art Unit 1774

November 4, 2005